

**Detailed Action**

Claims 5, 8, 10-12, 18, 20 and 32-35 remain pending in the application.

Applicant's representative was contacted on March 08, 2011 to amend independent claims 5 and 18, and to cancel claims 32-35

Authorization for the examiner's amendment was given in a telephone interview with Jeremy Jay, on March 19, 2011.

With respect to the proposed claims, an examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the issue fee.

**EXAMINER'S AMENDMENT**

In the claims

Correct claims 5 and 18 as follows:

Page 2, lines 7-12 of **claim 5**, the phrase "or (ii) a variant of the amino acid sequence of SEQ ID NO: 1, wherein the variant comprises the amino acid sequence of SEQ ID NO: 1 except for 1-5 amino acid substitutions, deletions, or additions, and wherein the variant retains the ability to bind to the IL-21 receptor and produce a physiological effect produced by binding of the IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1 to the IL-21 receptor " has been deleted.

Page 3, lines 7-12 of **claim 18**, the phrase "or (ii) a variant of the amino acid sequence of SEQ ID NO: 1, wherein the variant comprises the amino acid sequence of SEQ ID NO: 1 except for 1-5 amino acid substitutions, deletions, or additions, and wherein the variant retains the ability to bind to the IL-21 receptor and produce a physiological effect produced by binding of

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the IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1 to the IL-21 receptor " has been deleted.

Claims 32, 33, 34 and 35 have been cancelled.

#### **Reasons for allowance**

The following is an examiner's statement of reasons for allowance: The prior art of record does not teach or suggest of compositions and methods comprising:

A method for enhancing an immune response in a subject, comprising

- a) isolating a population of cells comprising one or more of a mature B cell and a B cell progenitor from the subject;
- b) contacting the population of cells comprising one or more of a mature B cell and a B cell progenitor with a composition comprising (i) an IL-21 polypeptide comprising the amino acid sequence of SEQ ID NO: 1, wherein the population of cells optionally is contacted with at least one antigen, and wherein the composition induces differentiation of at least one of the mature B cell and the B cell progenitor into one or more of a memory B cell and a plasma cell;
- c) isolating or purifying one or more of the memory B cell and the plasma cell; and
- d) introducing at least one of the memory B cell and the plasma cell into the subject, thereby enhancing the immune response.

#### **Withdrawn /Rejections**

#### **Claim Rejections - 35 USC § 103**

In view of Applicants' amendment of claims 5 and 18 and cancellation of claims 32-35, rejection of claims 5, 8, 10-12, 18 and 20 under 35 U.S.C. 103(a) as being unpatentable over Newell et al. (US Publication No. 2003/0138433, Publication Date July 3, 2003; hereafter referred to as "Newell"), in view of Novak et al (US Publication No. . 2003/0125524, of record;

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Publication date September 26, 2002; see SCORE search results for 10579988 and Search Result 20091207\_124249\_us-10-579-988a-1.rag.Results 3) has been withdrawn.

### **Conclusion**

Claims 5, 8, 10-12, 18 and 20 are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Leavitt whose telephone number is 571-272-1085. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach, Ph.D can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1633; Central Fax No. (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Maria Leavitt/

Maria Leavitt  
Primary Examiner, Art Unit 1633